

CLAIMS

1. A crosslinking agent (1) for crosslinking ionotropic gels by linking gel molecules (2) by counterion bridges (5),  
characterized in that  
the crosslinking agent contains the counterions (4) in a state where they are bound to a carrier substance (3), and the counterions (4) can be released from the carrier substance (3) under the external influence of a substance, temperature or radiation.
2. The crosslinking agent according to claim 1, where the carrier substance consists of cage molecules which bind the counterions in an electronic ground state and release the counterions in an electronic excitation state.
3. The crosslinking agent according to claim 2, where the cage molecules are formed from cage substances such as those used in cellular physiology for transport of divalent ions into biological cells.
4. The crosslinking agent according to claim 1, where the carrier substance and the counterion form a salt compound which can be dissolved under the influence of an acidifying solution.
5. The crosslinking agent according to claim 4, consisting of calcium carbonate.

6. The crosslinking agent according to one of the preceding claims, designed for the crosslinking of alginic acid molecules.
7. A gel solution containing an ionotropic gel and a crosslinking agent according to one of claims 1 through 6.
8. A powder composition consisting of a dried, uncrosslinked ionotropic gel and a dried crosslinking agent according to one of claims 1 through 6.
9. A method of crosslinking ionotropic gels using a crosslinking agent according to one of claims 1 through 6 with the steps:
  - providing a mixture of the gel molecules to be crosslinked and the crosslinking agent,
  - forming a layered body or a volume-molded body of the mixture, and
  - crosslinking the gel molecules by the external influence of a substance, temperature or radiation, which causes the counterions to be released from the carrier substance.
10. The method according to claim 1, whereby the first step comprises providing an aqueous solution of the gel molecules to be crosslinked and adding the crosslinking agent.

11. The method according to claim 9, where the first step includes mixing and grinding a powder of the uncrosslinked gel molecules and the crosslinking agent.
12. The method according to one of claims 9 through 11, whereby the crosslinking is induced by UV light exposure.
13. The method according to one of claims 9 through 11, whereby the crosslinking is induced by acidification.
14. The method according to one of claims 9 through 13, whereby the crosslinked ionotropic gel is formed in capsule form.
15. The method according to claim 14, whereby live biological cells are encapsulated in the capsules.
16. A use of a crosslinking agent according to one of claims 1 through 6 or a gel solution according to claim 7 or a powder composition according to claim 8 for
  - preparing wound dressings,
  - preparing dental fillings,
  - producing transplant encapsulations,
  - producing active ingredient encapsulations for food technology, and

- producing active ingredient encapsulations for cosmetics.